



GCCATCCCAT CAACAGAAGG TTAAAGTGGA AATCCATTTC ATTAGAAAAG 50
ATCGGACAAA GGGTACTCTT AAGCATACAA C ATG AGG GCG GTG GCG 96
Met Arg Ala Val Ala 5
GTT TTC TTT GCT TGC GTT CTC TTC TGT ATG GTT CAC AAA GCC 138
Val Phe Phe Ala Cys Val Leu Phe Cys Met Val His Lys Ala 15
10
GCA CTT GCG GAT GAT AAA ACG TGC AAC CCT ACA GAT TTT ATG 180
Ala Leu Ala Asp Asp Lys Thr Cys Asn Pro Thr Asp Phe Met 25
20 30
GTT ACC CAA ACC ATA ACT GGA TTG ACA ATC GGC GGT AAA CAA 222
Val Thr Gln Thr Ile Thr Gly Leu Thr Ile Gly Gly Lys Gln 35
40 45
GAG TTC GAG GTC AAT TTA ATA AAC AAT TTG TAT TGT GCA CAA 264
Glu Phe Glu Val Asn Leu Ile Asn Asn Leu Tyr Cys Ala Gln 50
55 60

A-----A

FIG. 1a

A - - - - - A

TCT AAT GTC AAA GTT TCA TGT GAC GGG CTT CAT ACC ACC GAA 306
Ser Asn Val Lys Val Ser Cys Asp Gly Leu His Thr Glu 75
65 70

CCA ATA GAT CCT CAC ATT ATC AGA CCA CTT AGT GAC GGA ACG 348
Pro Ile Asp Pro His Ile Arg Pro Leu Ser Asp Gly Thr 85
80

AAC AAC TGC CTT GTC AAC AAT GGA GCG CCT ATT TCT CAT GCT 390
Asn Asn Cys Leu Val Asn Asn Gly Ala Pro Ile Ser His Ala 100
90

ACT CTT GTA GCA TTC AAG TAT GCC TGG GAT GTT CCT CCA TCT 432
Thr Leu Val Ala Phe Lys Tyr Ala Trp Asp Val Pro Pro Ser 115
105 110

TTC AGC ATC ATC AGC TCT GAT ATA AAT TGC TCC TAA 468
Phe Ser Ile Ile Ser Ser Asp Ile Asn Cys Ser OCH 125
120

GGAGAA ATTCTAGTTG GCAGAGAATA ATCATATAGT CTTTTTACT 515

B - - - - - B

FIG. 1b



B-----B

GAGCTATTTA ATTTTTC	TTTTCACCAA	TAAGATTATT	TTAATGGAAT	565
GTAAATGTAT	TAGAAATTGAA	AAATAAAAAA	AAAAAAA	615
AAAAAAA				625

FIG. 1c



GAAAGTTGAA	ACATCTCCAT	CAAACTCTAG	AGTCAGATTT	CCCACAAG	48
ATG ATT TCA	TCG GCA AAT	AAC AAA GGC	GCC GGC	ACA AGC	87
Met Ile Ser	Ala Ser Ala	Asn Lys Gly	Ala Gly Thr	Ser	
	5	10			
CGC CGC AAG	CTC CGT TCT	GAG AAG GCT	GCA CTC CAG	TTC	126
Arg Arg Lys	Leu Arg Ser	Glu Lys Ala	Ala Leu Gln	Phe	
	15	20		25	
TCC GTC AGT	CGC GTC GAA	TAC TCC CTC	AAG AAG GGG	CGC	165
Ser Val Ser	Arg Val Glu	Tyr Ser Leu	Lys Lys Gly	Arg	
	30	35			
TAT TGC AGG	CGC TTA GGC	GCT ACG GCC	CCC GTC TAC	CTA	204
Tyr Cys Arg	Arg Leu Gly	Ala Thr Ala	Pro Val Tyr	Leu	
	40	45		50	
GCC GCC GTC	CTT GAA AAC	CTC GTG GCC	GAA GTG TTG	GAC	243
Ala Ala Val	Leu Glu Asn	Leu Val Ala	Glu Val Leu	Asp	
	55	60		65	

A-----A

FIG. 5a



A -----A

ATG GCG GCG AAC GTG ACA GAA GAA TCC CCC ATT GTT 282

Met Ala Ala Asn Val Thr Glu Thr Ser Pro Ile Val 75

ATC AAA CCG AGG CAT ATT ATG CTT GCC CCC AGG AAT GAT 321

Ile Lys Pro Arg His Ile Met Leu Ala Pro Arg Asn Asp 80 85 90

GTA GAA GTT GAA CAA GCT GTT TCA CGG TGT CAC CAT CTC 360

Val Glu Val Glu Gln Ala Val Ser Arg Cys His His Leu 95 100

GGC ATC AGG TGT CGT CCC TAAACACGC AAAGAGCTGG 398

Gly Ile Arg Cys Arg Pro 110

ACCGTCGCAA ACGCCGTTCC ACCTTTCAGC CGGATTAGTT CTTGATATTT 448

CATTCTATCA ATCTTGGTTA TGTGACTGTG ATTTTTCGTT TTGTGTTGAA 498

B -----B

FIG. 5b



B-----B

CTAAGCCCC TAATCTGGAT TTCCTGTTTT ATGTTGAACT AAGTCTGTGC 548

ACTCTTGAAG TAAAAAAAAA AAAAAAAAAA AAAAAAAAAA 587

FIG. 5c

GATCCCAAAT CATCA ATG ACG ATC CCC GAA AAG AAA TCC GTC	42
Met Thr Ile Pro Glu Lys Lys Ser Val	
1 5	
GCT CCG ATG GCC CGT ATG AAG CAT ACA GCC CGC ATG TCT	81
Ala Pro Met Ala Arg Met Lys His Thr Ala Arg Met Ser	
10 15 20	
ACC GGC GGT AAG GCT CCA CCA CGC AAG CAG CTC GCC TCT AAG	120
Thr Gly Gly Lys Ala Pro Arg Lys Gln Leu Ala Ser Lys	
25 30 35	
GCT CTT CGC AAG GCG CCA CCA CCA CCG ACC AAA GGA GTG	159
Ala Leu Arg Lys Ala Pro Pro Pro Thr Lys Gly Val	
40 45	
AAG CAG CCC ACC ACT ACC ACC TCC GGA AAA TGG CGC TTC	198
Lys Gln Pro Thr Thr Thr Thr Ser Gly Lys Trp Arg Phe	
50 55 60	

A -----A

FIG. 6a



A.....A

GCG AGA TTT CAC	AGG AAA CTG	CCA TTC	CAA GGG	CTG GTG	237
Ala Arg Phe	His Arg Lys	Leu Pro Phe	Gln Gly Leu	Val	
65	70				
AGG AAA ATC TGG	CAG GAC TTG	AAG ACA CAT	CTG CGC	TTC	276
Arg Lys Ile	Trp Gln Asp	Leu Lys Thr	His Leu Arg	Phe	
75	80	85			
AAG AAC CAC TCG	GTT CCT CCA	CTT GAG GAG	GTA ACT	GAG	315
Lys Asn His	Ser Val Pro	Leu Glu Glu	Val Thr	Glu	
90	95	100			
GTT TAT CCT TGC	CAA ACT ATT	GGA GGA	TGC TAT		348
Val Tyr Pro	Cys Gln Thr	Ile Gly Cys	Tyr		
105					
TAGGATATTG AATT	TGGATA ATGGTTTAAT	TATCTGTTCT	ACCTTTATGA		398
TCAAATTTCT GTGG	CTCAGC GTTGTGTAAT	TTGGGCAATC	GAATTCTTAG		448
CTATATTGCC TCA	AAAAAAAAA AAAAAAAAAA	AAAAAAAAA			485

FIG. 6b

GGAGGGTGTT GGAATTAGGT TTGCCTAGGG TTTGCCCTAGG TTTAGAGAAA 50
TAGTCAAAAAT TGTCCTATTC TATAGGCATG ATTTAGTAGT GAGTTAAATTA 100
TCCATAAATT TCTCTTCTTG TATGCTCAA TAACTGGTTC TTTAATGAAT 150
AGATAAATTAA GTTTTGTAGC AATTCTTCC TCAAATTGAG TATCAACAAT 200
TGTTAGATTG CTTTGGTGAT TATAATTGAT ATAATTGTTT GTAAGAATGT 250
GTAGTGAAAA GATTGTGATT ATTCATTTCC TTGTTGGACG AATTGTTAGA 300
GCCCCATCGC TAATGCCCTTA TAGTACTCGA AATATGTTGG GAATAGAAGA 350
TGAAAAAATCC CATTCTTTGT AGTAGGAGTA AAAATTTGTC TTTTCAATTAT 400
TCCATTGAAT GTTAACCACT TGCCATTTCAT CTGACGGGGA TGGCAGAGTT 450
CCGACCATCT AGTGATCCGT GGGATATTGA TTTTGGTGTG TCAATGAAAT 500
TGTGAGAACG GGCTTCTGGG AGAGAAAGC CCTCTTGCCT CTGATATGAA 550
CACTGAGGCT GATTATGTTA ACGGATGGAG ATTTATCAGT GGCTGAATTT 600
GGGTGCTGTA GAGACAGAAT TTGAAAGTTC TAACAATAAA CCCTAATTCT 650
GAACTTGGC GGGGCTGGGA TTTTACTCTT AACGTGAAGA GAGGCAAGAT 700
GAATTGACAG CTTGGAAGTC GATCCAGTAT TTGCAGCAGT CGTGACGAAT 750

A-----A

FIG. 10a



A-----A

TGGTTGGACA GTTACATCGG TCAGAGAATG CGTTCCTATAA ATTCCCCCAA	800
TGCGGCAGTG AAAATCCCAT CCCATCAACA GAAGTTTTAA GTGGAACCC	850
ATTCCAATAG AGAAGATCGA ACAAGGGTA TTAAACATA CAAATGGGGG	900
CAGTGGTGTT TCTTTTGCT TCGGTTCTCT TCTGTATGGT TCACA	945

FIG. 10b